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|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 09/438,406             | CLASSEN ET AL.      |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | Jacqueline Wilson      | 2612                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after final amendment received 02/23/05.
2. ☒ The allowed claim(s) is/are 3-8.
3. ☒ The drawings filed on 12 November 1999 and 26 August 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---|--|

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Rebecca Henkel on March 21, 2005.

The application has been amended as follows:

Cancel Claim 2;

Claim 3, lines 5 and 12, "filed" should be changed to -field--;

Claim 5, lines 5 and 12, "filed" should be changed to -field--.

### ***Allowable Subject Matter***

1. Claims 3-8 allowed.

The prior art neither teaches nor fairly suggests a method of processing a video image signal in a color video camera having a shutter speed, analog gain and a color balance adjustment means, the method comprising the steps a) deriving a digital luminance signal from said analog video image signal; b) analyzing the luminance signal over a first field of video; c) determining, based on the analyzed luminance signal, a first set of control signals including a first shutter speed control signal and a first analog gain signal, the first set of control signals causing the

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luminance of a majority of pixels in a field of video to be below a first limit defining a workable range of luminance; d) **determining, from the first set of control signals, a first set of color balance settings**; e) during a second field of video, **applying the first shutter speed control signal, the first analog gain signal and the first set of color balance settings to the shutter speed, analog gain and color balance adjustment means**, respectively; f) analyzing the luminance signal over the second field of video; g) determining, based on the analyzed luminance signal, a second set of control signals including a second shutter speed control signal and a second analog gain signal, the second set of control signals causing the luminance of a majority of pixels in a field of video to be above a second limit defining the workable range of luminance; h) **determining, from the second set of control signals, a second set of color balance settings**; and, i) during a next field of video, **applying the second shutter speed control signal, the second analog gain signal and the second set of color balance settings to the shutter speed, analog gain and color balance adjustment means**, respectively, as claimed in Claim 3.

The prior art neither teaches nor fairly suggests deriving a digital luminance signal, analyzing the luminance signal, determining a first set of control signals, determining a first set of color balance settings, during a second field of video applying the first set of control signals and first set of color balance settings, analog gain and color balance adjustment means, and repeating using a second field of view, **deriving color difference signals U and V from the analog video signal for each pixel, and for each pixel, comparing V with a threshold value representing green to determine if a pixel is green**, as claimed in Claim 5.

The prior art neither teaches nor fairly suggests a color video camera having therein a shutter speed control circuit, an analog gain circuit for adjusting the gain of the analog video signal, an analog to digital converter for converting a video output signal from said analog gain circuit into a digital signal for each pixel of the image, and luminance and chrominance signal processing circuits responsive to the digital signal for producing a luminance signal and color difference signals for each pixel; a histogram counter responsive to the luminance signal for counting during **one field the number of pixels having a luminance greater than a maximum level** and for **counting during the next field the number of pixels having a luminance less than a minimum level**; and, a controller for developing a shutter speed control signal, an analog gain control signal and color gain control signals for controlling said shutter speed control circuit, said analog gain circuit and said chrominance signal processing circuits, respectively, said controller being responsive to the count obtained during said one field to develop a shutter speed control signal and an analog gain signal **for bringing luminance of a majority of the pixels below said maximum level during the next field**, and responsive to the count obtained during said next field to develop a shutter speed control signal and an analog gain signal **for bringing luminance of a majority of the pixels above said minimum level a next succeeding field**, as claimed in Claim 7.

#### *Conclusion*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Wilson whose telephone number is (571) 272-7322.

The examiner can normally be reached on 8:30am-5:00pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JW  
03/11/05

  
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SUPERVISORY PATENT EXAMINER  
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